DEPARTMENT OF HEALTH AND ENVIRONMENTAL SCIENCES

BILLINGS REGIONAL OFFICE

TED SCHWINDEN, GOVERNOR

STATE OF MONTANA

AIR QUALITY BUREAU (406) 248-3266
WATER QUALITY BUREAU (406) 252-5697
FOOD & CONSUMER SAFETY BUREAU (406) 252-5697

December 22, 1986

Re: Preliminary Environmental Review
City of Poplar Class II Landfill

Board of County Commissioners, Roosevelt Co., 400 2nd Ave. S., Wolf Point, 59201
Randall Riley, Mayor, City of Poplar, Box 638, Poplar, 59255
Robert Nygard, Mayor, Town of Brockton, Box 228, Brockton, 59213
Howard Smith, Director of Public Works, City of Poplar, Box 638, Poplar, 59255
Margaret Simons, R.S., Roosevelt Co. Sanitarian, Courthouse, Wolf Point, 59201
Ken Ryan, Chairman, Ft. Peck Tribes, Box 637, Poplar 59255
Jackie W. Miller, Director, Ft. Peck Office of Environmental Protection, Box 637, Poplar, 59255
Jerry Lee, Tribal Sanitarian, PHS Indian Health Service, Indian Health Center, Poplar, 59255
Larry Travis, Soil Conservationist, BIA, Box 637, Poplar, 59255
Stanford & Bertha Paulson, Box 125, Poplar, 59255
The Lander Co. Limited Partnership, 414 Demers Ave., Grand Forks, N.D., 58201
Willie P. Lockman, Box 175, Poplar, 59255
Fred Clark, Box 217, Poplar, 59255
Delbert & Marianne Marottek, Box 864, Poplar, 59255
Shanks Farm Inc., Box 26, Brockton, 59213
Julius & Bernice Kozak, Box 1155, Poplar, 59255
William H. Beck, Box 157, Poplar, 59255
Clemance & Lorna Lockman, Box 1124, Poplar, 59255
Burlington Northern, 2600 Continental Plaza, 777 Main St., Ft. Worth, TX., 76101
Austin Buckles Sr., Box 252, poplar, 59255
Peter Dupree, Box 872, Poplar, 59255
Steve Greyhawk, General Delivery, Poplar, 59255
Earl Jones Jr., Box 264, Poplar, 59255
Tom Ellerhoff, Environmental Sciences Div., D.H.E.S., Helena, 59620
Environmental Quality Council, Capital Complex, Helena, 59620
Document Section, State Library, Capital Complex, Helena, 59620
Barry Damschen, P.E., Damschen and Assoc., Box 4817, Helena, 59604
Jim Leiter, S.H.W.B., Cogswell Bldg., Helena, 59620

Ladies and Gentlemen:

Pursuant to the Administrative Rules of Montana, 16.2.604, the following Preliminary Environmental Review has been prepared by the Department of Health and Environmental Sciences concerning the proposed City of Poplar Class II Landfill.

The purpose of the Preliminary Environmental Review is to inform all interested governmental agencies, public groups, or individuals of the proposed action and to determine whether or not the action may have a significant effect on the environment. This Preliminary Environmental Review will be circulated for a period of fifteen (15) days at which time a decision will be made as to our future action.

If you care to comment on this proposed action, please do so within the allotted time. Your comments can be sent to me in care of the Department of Health and Environmental Sciences, Solid & Hazardous Waste Bureau, P.O. Box 20296, Billings, MT. 59104-0296.

Sincerely,

Scott M. Peterson

Scott M. Peterson, R.S.
Solid & Hazardous Waste Bureau
Billings Regional Office

SMP/cc

encl.

DEPARTMENT OF HEALTH AND ENVIRONMENTAL SCIENCES
Cogswell Building, Helena, Montana 59601
(406) 444-2821

PRELIMINARY ENVIRONMENTAL REVIEW

Division/Bureau Environmental Sciences Div./Solid & Hazardous Waste Bureau

Project or Application City of Poplar proposed Class II Landfill

Description of Project The City of Poplar has submitted a solid waste management system license application to this Department for a Class II Landfill site to be located in the NW 1/4 NW 1/4 of Section 11, Township 27N, Range 51E in Roosevelt County (see attached map). The site is being leased from the Fort Peck Assiniboine and Sioux Tribes and will be open to the public five days a week.

POTENTIAL IMPACT ON PHYSICAL ENVIRONMENT

	Major	Moderate	Minor	None	Unknown	Comments on Attached Pages
1. Terrestrial & aquatic life and habitats			X			X
2. Water quality, quantity and distribution			X			X
3. Geology & soil quality, stability and moisture			X			X
4. Vegetation cover, quantity and quality				X		X
5. Aesthetics			X			X
6. Air quality				X		X
7. Unique, endangered, fragile, or limited environmental resources				X		
8. Demands on environmental resources of land, water, air & energy				X		
9. Historical and archaeological sites				X		X

POTENTIAL IMPACTS ON HUMAN ENVIRONMENT

	Major	Moderate	Minor	None	Unknown	Comments on Attached Pages
1. Social structures and mores				X		
2. Cultural uniqueness and diversity				X		
3. Local and state tax base & tax revenue				X		
4. Agricultural or industrial production				X		X
5. Human health				X		X
6. Quantity and distribution of community and personal income				X		
7. Access to and quality of recreational and wilderness activities				X		
8. Quantity and distribution of employment				X		
9. Distribution and density of population and housing				X		
10. Demands for government services			X			X
11. Industrial & commercial activity				X		
12. Demands for energy			X			X
13. Locally adopted environmental plans & goals				X		
14. Transportation networks & traffic flows			X			X

Other groups or agencies contacted or which may have overlapping jurisdiction Fort Peck Office of Environmental Protection

Bureau of Indian Affairs

Individuals or groups contributing to this PER. Howard Smith, Poplar Public Works Director; Dave Jones, SCS Environmental Eng., SCS State Office, Bozeman; Jackie Miller, Director, Fort Peck Office of Environmental Protection.

Recommendation concerning preparation of EIS Not Necessary

PER Prepared by: Scott M. Peterson

Scott M. Peterson

Date: 12/23/86

DHES/ESD-2

GENERAL COMMENTS

The City of Poplar is proposing to license a sanitary landfill on land leased from the Fort Peck Assiniboine and Sioux Tribes in the NW1/4 NW1/4 Sec. 11, Township 27N, Range 51E, Roosevelt County. The site will cover a total of 40 acres and will be developed in four phases of 10 acres each. The site is being developed as a replacement for the current Poplar landfill site which is now full and the Brockton and Fort Kipp landfills. The operation and maintenance plan submitted by Damschen and Associates, a private engineering firm hired by the City of Poplar, states that the landfill will be open to the public between the hours of 8:00 a.m. and 5:00 p.m. during the winter months and 9:00 a.m. and 6:00 p.m. during the other months of the year. All individuals and businesses will be able to haul their own waste to the site or use the City of Poplar's municipal collection service. The City of Poplar will also provide collection service to the communities of Brockton and Fort Kipp. The site will utilize a locked gate at the entrance to deter traffic during non-operating hours. It will have an improved gravel road from U.S. Highway 2 to the entrance gate and another gravel road will be constructed to the operating trench. The City of Poplar will assume responsibility for operation and maintenance of the site. Administrative responsibilities will be through the Mayor and City Council. Day to day operation will be the responsibility of the City's Public Works Director. The Roosevelt County Road Department has agreed to excavate the trenches in the landfill as needed. In exchange for this service, the City of Poplar has agreed to allow the County residents in the area use of the site at no cost. Trenches will be excavated in accordance with the landfill plan. The City of Poplar has recently purchased a 1987 953 Catapiller loader equipped with a ripper and four-in-one bucket for compacting and providing daily and intermediate cover at the site. A full-time city employee will operate the equipment, control traffic, and monitor loads coming into the landfill. Only Group II and III wastes will be accepted. The City and County will jointly apply final cover over filled areas and maintain roads. Litter control will be a perimeter fence of hog wire and barbed wire which will also restrict access to the site. Poplar will also purchase several portable litter fence sections which will be placed near the active filling areas. They have proposed hiring labor to pick up litter which might accumulate on the screens of the litter fence and within and outside the site. Local law enforcement will be used to deter indiscriminate dumping and littering which might occur outside the landfill site.

PRELIMINARY ENVIRONMENTAL REVIEW

CITY OF POPLAR

CLASS II LANDFILL

Potential Impact on Physical Environment

1. Terrestrial and Aquatic Life and Habitats

No threatened or endangered mammals, reptiles, amphibians, or plant species are present on the site. Operation of the landfill would displace the mobile terrestrial wildlife species which might inhabit the site. They will be repelled from the site and adjacent areas due to noise and human activity. The projects adverse impacts on wildlife will be minimal.

2. Water Quality, Quantity and Distribution

If buried refuse comes into contact with water either through surface or groundwater infiltration, contaminants will leach out of the refuse forming "leachate". Due to chemical properties of leachate, substantial impacts to groundwater quality can occur if leachate migrates into a groundwater aquifer.

Groundwater at the site does not appear to be a problem. Six test holes were drilled by the Montana Salinity Control Association approximately six month ago. All have been monitored since that time for signs of groundwater. Only one test hole (#4), located in the bottom of the draw in the southern portion of the site, has shown any signs of groundwater and this has been at a depth of 44 feet. No solid waste will be deposited in this draw and the landfill trenches in that area of the site will be only 10 feet deep. Thus there will be at least 34 feet of separation between any deposited solid waste and groundwater.

Generally the site is located on soils which are classified by the Soil Conservation Service as Zahill loam. These types of soils are formed in glacial till. The clay till overlays Bearpaw shale. Bearpaw shale is not a source of useable groundwater and being approximately 1,000 feet thick is an excellent barrier to deep aquifers. The Missouri River allevium which contains useable groundwater perched on the shale is one half mile from the site. The nearest residential well using this groundwater is one mile down gradient from the proposed site. To the north, the slopes are mild and the land is in dryland small grains. A low berm will be constructed to divert overland runoff from the northern area to the draws on the east and west boundries. The shallow swales within the 40 acre site do not have incised channels which indicates insignificant past runoff flows.

Due to the small amount of moisture that falls in the Poplar area, coupled with the planned on and off site drainage plan, it is unlikely that leachate will be generated in any significant amounts. If leachate is generated then it is important to monitor and contain it on the site. The operation plan has been developed so that base elevations of the trenches are sloped in a down gradient direction. This will divert any leachate towards the aforementioned test hole #4 in the southern portion of the site. Monitoring will be done on a regular basis to detect any changes which would indicate leachate problems. If detected in amounts that containment and collection are necessary, a collection system could be installed along the southern border of th site at that time.

3. Geology and Soil Quality, Stability and Moisture

See water quality, quantity, and distribution.

4. Vegetation Cover, Quantity, and Quality

Rangeland vegetation on the site would be disturbed by landfill trench excavation and soil stockpiling. This would be a temporary impact as the trenches will be reclaimed and revegetated after they have been filled. Montana Solid Waste Management regulations require two feet of cover soil be placed over all filled areas before reclamation takes place. Slopes of 2 - 5% and revegetation are also recommended. The applicant has proposed to reclaim all excavations with at least three feet of cover soil. The plan also calls for all available top soil to be stripped and reapplied after landfilling is completed in each phase.

5. Aesthetics

Landfills invariably have a minor negative impact on aesthetics on the surrounding area. The operation and maintenance plans submitted by the applicant indicate that good provisions for litter control, daily cover, and access control have been made. Daily soil cover will reduce greatly the possibility of fires, litter, and rodent/insect harborage.

6. Air Quality

Excavation of trenches and covering of refuse at the site will create minor, temporary emissions of dust. The existing county road to the site will be upgraded to support increased traffic and heavy equipment in all weather conditions. Emissions will also increase due to the increased traffic, but because of the sparse population these emissions should not have a significant impact on the environment. Burning Class II landfill waste is not allowed by Montana Solid Waste regulations.

9. Historical and Archaeological Sites

No historic or archaeological sites are recorded for the project site. The BIA Area archaeologist will perform an on-site inventory prior to surface disturbances. If an elegible site is located during the inventory, a mitigation plan approvable by the State Historical Preservation Office will be prepared and carried out by the applicant.

POTENTIAL IMPACTS ON HUMAN ENVIRONMENT

4. Agricultural or Industrial Production

The project site is in rangeland used for grazing. Instensively farmed agricultural fields are located in the adjoining section. Development of the landfill will change its land use temporarily. Operation and maintenance according to Montana Solid Waste Laws and rules will lessen negative impacts of refuse disposal in the site.

5. Human health

Even if properly operated there still exists the potential of accidental injury at a sanitary landfill. If operated in strict compliance with the Montana Solid Waste Management Act, as the applicant has proposed, there should be little chance of a negative impact on human health.

10. Demands for Governmental Services

Demands for governmental service will be required on the local and state level to inspect and ensure the site is being operated in accordance with Montana State Solid Waste laws and regulations. Issuance of the license also requires administrative time and effort.

12. Demands for Energy

Demands for energy primarily come from the basic day to day operation of the solid waste site and the excavation of trenches within the proposed landfill. Diesel fuel will be consumed by the crawler-dozer used to compact, spread and cover refuse deposited in the site.

14. Transportation Networks and Traffic Flows

This site will be located approximately 4 miles east of the City of Poplar and will be used by approximately 4,000 people in the central one-third of Roosevelt County. The communities that will be served include Poplar, Brockton, and Fort Kipp, as well as all Tribal and rural residents located in this portion of the county.

Traffic flows will increase on U.S. Hwy. 2 between Poplar and the landfill site and on the small portion of county road leading to the landfill gate. The County of Roosevelt has agreed to upgrade the county road to withstand these increased loads. U.S. Hwy. 2 is a two lane paved highway and increased traffic will not significantly increase normal repair and maintenance. Increased maintenance will be required on the county road leading to the landfill but is not forseen as a significant problem.